

About Additional Two Claims

An applicant, revising finally his two provisional applications 09 / 992,467 and 60 / 279,292, concerning ellipsoidal microwave oven, decided to add two new claims, 45 and 46, and the overall quantity of new claims reached 16 including single independent claim.

In the provisional application 60 / 279,292, describing the Fig.3, on page 3, an inventor wrote: "Touch controls display should show *all the current data* during a food heating: its temperatures, humidity, and so on - *everything what cook needs to know and to see* (digitally!), instead of watching the *looming* food through the shielded door window in conventional microwave ovens. MiniOven2, as in all previous variants, has no door window. Window means obsolete thought, mentality and habits."

In the provisional application 09 / 992,467, on page 4, line 3 from the top, there has been written: "Meanwhile, no observation windows are needed for today's microwave ovens. A lot of **different sensors** employed today inside the cavity combined with **microcomputer** make the watching of the foodstuff through the window superfluous."

Such a statements, mistakingly neglected by applicant before, gives, by his mind, the right to pretend on couple of additional claims. Though there are no concrete words about digital video camera employed inside the cavity, nevertheless such a gadget belongs to the sort of the above mentioned **different sensors** to make two new claims about a watching over the foodstuff not conventionally *through the obscured shielded door window* but **clearly**, right on the liquid crystal display placed either on the touch control panel or on the microwave oven's door. An inventor believes that earlier or later the specially made video camera could work in the microwave medium.

Amended Listing Of The Claims

Claims 1-18 and 20, filed Aug. 21, 2003, were currently cancelled by an applicant Sept.16, 2005 and remain to be cancelled.

Claim 19, filed Aug. 21, 2003, was amended by an applicant in a Sept.16, 2005 respond and remains to be intact.

Claim numbers of new claims 21-33, numbered Sept.16, 2005, are renumbered for 32-44 respectively by an applicant, as it was recommended by an Examiner in the Office communication mailed 12/19/2005.

New claims 45 and 46 are currently added to the previous listing by an applicant.

What is currently claimed is:

Claims 1-18 (cancelled)

19. (currently amended) [A space saving cooking appliance comprising a partially spherical outer shell with a flat bottom containing a partially spherical cooking space, said spherical cooking space also having a flat bottom parallel to said flat bottom of a said outer shell]

An ellipsoidal microwave oven comprising:

an oval outer shell 14;

a microwave cavity 11 with an oval sidewall 44, flat top 13 and flat bottom 11A and 11B;

a machine compartment located above microwave cavity with antenna 420 located at the center of said flat top 13;

microwaves emitted spherically from antenna 420 on sidewall 44, on flat bottoms 11A and 11B;

a front oval door 34 for inserting and removing food;

Claims 20-31 (cancelled)

~~Claim 20 (cancelled).~~

~~Claim numbers of new claims 21-33 are renumbered for 32-44 respectively, as it was recommended by an Examiner.~~

~~21~~ 32.

~~32~~ (new) The ellipsoidal macrowave oven of claim 19 wherein a shape of said oval outer shell 14 is based on a form of ellipsoid.

~~22~~ 33.

~~33~~ (new) The ellipsoidal macrowave oven of claim 32 wherein said ellipsoid is formed by rotation of an ellipse around its vertical axis; said ellipse is built on two axes, horizontal and vertical, where their ratio is within 1.0 and approximately 2.0.

~~23~~ 34.

~~34~~ (new) The ellipsoidal microwave oven of claim 19 wherein said ellipsoid has a flat horizontal bottom; said horizontal bottom is located above lower point of said ellipsoid for approximately 20 percent of its height.

~~24~~ 35.

~~35~~ (new) The ellipsoidal microwave oven of claim 19 wherein said oval sidewall 44 has a shape of a barrel to reflect microwaves, emitted spherically from antenna 420, radially inward and down into the central lower part of the cavity.

~~25~~ 36.

36. (new) The ellipsoidal microwave oven of claim 35 wherein the said barrel is formed by revolving a curve 44 around vertical axis of said ellipsoid.

37. (new) The ellipsoidal microwave oven of claim 36 wherein said curve 44 is build on points a-b-c-d-e found as the reflective points to reflect said microwaves radially inward and downward from said barrel-shaped sidewall 44 onto said bottom 11A, where food mostly remains underheated.

~~26~~ 38.

38. (new) The ellipsoidal microwave oven of claim 37 wherein said corrugated part 11B has a series round grooves to reflect microwaves radially inward from said round grooves into the central lower part of cavity to enhance cooking power in said part of the cavity.

~~27~~ 39.

39. (new) The ellipsoidal microwave oven of claim 38 wherein the center-bound slopes of said round grooves 11B are leant under different angles: the slopes of most centrally placed rings are more steep while the most outer ones are more slopping in order to converge the reflected from said round grooves microwaves into the most low and central zone of the cavity.

~~28~~ 40.

40. (new) The ellipsoidal microwave oven of claim 19 wherein said microwaves, radially emitted from a single antenna 420 on three different zones - on said oval side wall 44 (a-b-c-d-e zone), on said bottom 11A (f zone) and on most central part of said bottom 11A (g-h-i-h-g zone), create a non-uniform microwave density throughout the cavity, concentrating said density in most needed - central-bottom spots and keeping it thin where the high density is not needed - upper part of cavity.

~~29~~ 41.

41. (new) The ellipsoidal microwave oven of claim 40 wherein said microwave density is most high (except antenna's itself emission zone) immediately over said bottom 11A (g-h-i-h-g zone), where all three microwave flows - directly emitted from said antenna 420 downward onto bottom, reflected from said oval sidewall 44 and reflected from said round grooves 11B - have been finally come together, creating the most dense microwave zone to be able to penetrate and cook the most deep, i.e. central portions of the food.

~~30~~ 42.

42. (new) The ellipsoidal microwave oven of claim 19 wherein a shape of the said oval door 34 for inserting and removing food fully complies with the general shape of said microwave oven's body shell - ellipsoidal, including door's window glass and microwave shield.

~~31~~ 43.

43. (new) The ellipsoidal microwave oven of claim 42 wherein said front door 34 opens and closes in an up-and-down manner, is fixed on an upper hinges, and is without a door handle; said front door opens upward automatically by pressing a button on control panel, and closes pushing the door down by a hand.

~~32~~ 44.

44. (new) The ellipsoidal microwave oven of claim 19 wherein said front oval door 34 for inserting and removing food is windowless.

~~33~~ 45.

45. (new) The ellipsoidal microwave oven of claim 19 wherein said microwave cavity 11 is equipped with at least one digital video camera to send the view of cooking food on control panel's liquid crystal display 74.

~~34~~ 46.

46. (new) The ellipsoidal microwave oven of claim 19 wherein said front oval door 34 for inserting and removing food is equipped with a liquid crystal display to watch over the cooking food.

Respectfully submitted

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Note: The renumbering of claims 32-46 is not needed as claims 21-31 had been filed on 4-11-2005.

/Philip Leung/

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